**CAB SAFTY USECASE**

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| **Use Case Name** | Facial Expression Recognition |
| **Actors** | Camera |
| **Descriptions** | When the recognizer program runs it fetches the facial expression recognizer Model. It applies CNN Algorithm to recognize the expression. The program runs in forever loop. |
| **Flow of Events** | 1) Camera detects the face  2) Feeds the face data to the CNN Algorithm  3) The Algorithm using the model, returns the type of the expression |

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| **Use Case Name** | Sending data to the Cloud |
| **Actors** | GPS/GSM Hat module , Raspberry pi |
| **Descriptions** | GPS/GSM Hat module details and detected expressions are sent to the cloud (FireBase) through the pi module. |
| **Flow of Events** | 1) When the target expression is detected the current readings of GPS/GSM Hat module along with the images of the expressions are uploaded to the cloud.  2) Among the list of police stations, the device finds the nearest one.  3) Sending those data to located police station. |

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| **Use Case Name** | Fetching the data from cloud in the Android Application |
| **Actors** | Authorized user |
| **Descriptions** | The Application displays images and real time location from the cloud. |
| **Flow of Events** | 1) User will get the notification regarding the most update in the cloud.  2) Displaying the images and live location of the device(vehicle) which updated the cloud(FireBase) most recently.  3) The authorized user takes action or ignores the update if it happens by miscalculations of the device. |